

and wherein non-dendritic particles independently have a largest dimension of about 10 μm or less,

and further wherein the particle comprises a metal selected from the group consisting of nickel, chromium, molybdenum, cobalt, iron and combinations thereof.

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Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (page i).

REMARKS

Claim Amendment

Claims 6, 11, 16, and 17 have been cancelled. Claims 1 and 18 have been amended to include the limitations of Claims 6 and 11. Claim 12 has been amended to change its dependency. No new matter has been introduced by this amendment.

Claim Rejection Under 35 USC §103(a) over U.S. Patent 4,435,483

Claim 1-5, 7-15, 18, and 19 are rejected as being obvious over U.S. Patent 4,435,483 to Ahslund *et al.* (hereinafter "Ahslund"). The Examiner stated that Ahslund disclosed a stainless steel powder that appears to be present in an irregular morphology resulting from consolidation of smaller particles. The Examiner further stated that Applicants did not meet the burden of showing that any process steps in a "product-by-process" claim result in a product materially different from that disclosed in the prior art.

Claims 1 and 18 have been amended to recite the limitations of Claim 6, drawn to a range for the largest dimension of a non-dendritic particle. This limitation is not disclosed in Ahslund. Therefore, Claims 1 and 18 as amended, as well as claims dependent thereon, are not obvious in view of Ahslund.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claim Rejection Under 35 USC §103(a) over U.S. Patent 5,409,520

Claims 1-10, 15, and 18 are rejected as obvious over U.S. Patent 5,409,520 to Mori *et al.* (hereinafter “Mori”). The Examiner stated that the prior art powder appears to meet the physical limitations defined in the instant claims. The Examiner further stated that, while the prior art powder is obtained from a starting material that is dendritic, rather than non-dendritic as in the instant claims, Applicants did not meet the burden of showing that any process steps in a “product-by-process” claim result in a product materially different from that disclosed in the prior art.

Claim 1 and 18 have been amended to recite the limitations of Claim 11, drawn to a particle composition comprising “a metal selected from the group consisting of nickel, chromium, molybdenum, cobalt, iron and combinations thereof”. These limitations are not disclosed in Mori. Therefore, Claims 1 and 18 as amended, as well as claims dependent thereon, are not obvious in view of Mori.

Reconsideration and withdrawal of the rejection are respectfully requested.

Claim Rejections Under Judicially Created Doctrine of Obviousness-Type Double Patenting

Claims 1-15, 18, and 19 are rejected over Claims 1-5 of the U.S. Patent 6,193,778 and, provisionally, over the claims of co-pending U.S. Application 09/724,147. Claims 1-15, 18, and 19 are also rejected over Claims 1-5 of the U.S. Patent 6,193,085 and, provisionally, over the claims of co-pending U.S. Application 09/724,148.

A Terminal Disclaimer under 37 C.F.R § 1.321(c) and Statement under 37 C.F.R § 3.73(b) will be filed upon notification that the rejected claims are otherwise allowable.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned at (978) 341-0036.

Respectfully submitted,

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MARKED UP VERSION OF AMENDMENTSClaim Amendments Under 37 C.F.R. § 1.121(c)(1)(ii)

1. (Twice Amended) A powder comprising metal containing or metal alloy containing anisotropic particles, wherein said powder is produced by a method comprising:
 - (a) heating a starting powder consisting essentially of non-dendritic metal or metal alloy containing particles under conditions suitable for initial stage sintering, thereby forming a lightly sintered material; and
 - (b) breaking the lightly sintered material, thereby producing a powder comprising anisotropic particles having irregular morphology, said particles comprising aggregated and fused non-dendritic metal or metal alloy containing particles having an air-laid density which is lower than the air-laid density of said starting powder,and wherein the non-dendritic particles independently have a largest dimension of about 10 μm or less,
and further wherein the particle comprises a metal selected from the group consisting of nickel, chromium, molybdenum, cobalt, iron and combinations thereof.
12. (Amended) The powder of Claim [11] 1 wherein said powder has an air-laid density of about 2.4 g/cm³.
18. (Twice Amended) A powder comprising metal containing or metal alloy containing anisotropic metal particles having irregular morphology, said particles comprising aggregated and fused non-dendritic metal or metal alloy containing particles,
and wherein non-dendritic particles independently have a largest dimension of about 10 μm or less,
and further wherein the particle comprises a metal selected from the group consisting of nickel, chromium, molybdenum, cobalt, iron and combinations thereof.